OVERLAND GIVES TWO AUTO SHOWS

Besides Palace Exhibit Has Complete Line on View at Broadway Showroom.

The Willys-Overland Company of Toledo, Ohio, has always been among the leaders in attractive displays at the various automobile shows, but this week it has surpassed its own record in display performances. Because of limited space at the Grand Central Palace only a part of its complete line of models could be shown there. Consequently the company arranged a much larger exhibition of its product in the new home of Willys-Overland, Inc., at Fiftieth street and Broadway.

The display at Fiftieth street and Broadway is a revlation to New Yorkers as to what can be done in the artistic arrangement of a modern automobile showroom. Nearly every one of the company's seventeen models for 1917 is on view, and for the first time local motorists have the opportunity of inspecting an absolutely complete line of cars designed to suit the tastes of all classes of buyers.

The news that the Willys-Overland Company has a still larger exhibition of its product at its branch home at Fiftieth street and Broadway was given wide circulation among the spectators at the show on opening night. For this reason it was necessary to make special arrangements at the branch to take care of the visitors who came there directly from the Grand Central Palace.

Besides the beautiful line of cars there are many other points of interest for the average visitor at the new Willys-Overland, Inc., home. Its extensive service methods, unique used car department, large line of accessories and the splendid furnishings in the showroom proper are all worth a long trip to see.

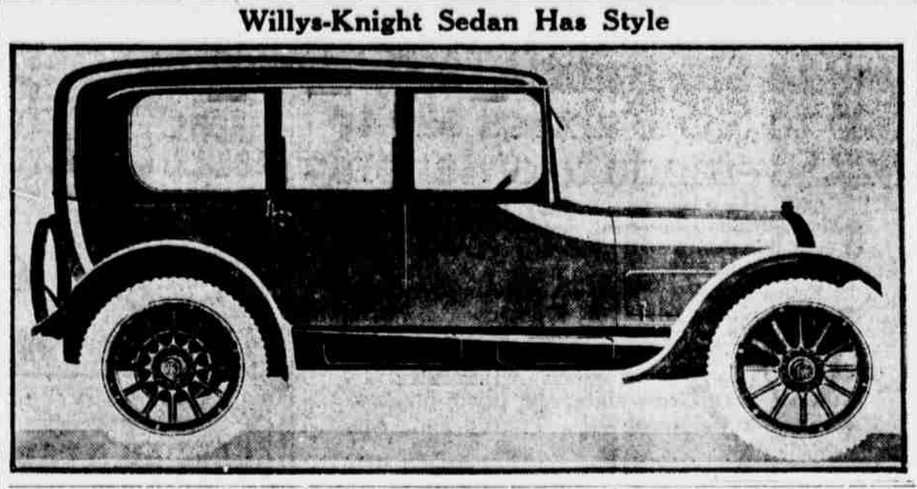
During show week Willys-Overland salesmen will be on the floor at the branch to receive visitors and see to it that each one gets individual attention.

MARMON VETERAN HERE.

H. H. Rice Tells of Company's Big Year.

One of the veteran sales managers at the show is H. H. Rice of the Nordyke & Marmon Company, who arrived Monday to preside at the Marmon exhibit and meet dealers and distributers. Mr. Rice has been selling Marmon cars for fifteen years and has a perfect record for attendance at national shows. This year he brings news of a big year in Marmon business. "Twenty-five hundred Marmon 34 cars have been delivered in the last twelve months," said Mr. Rice, "and we are now taking orders for deliveries weeks ahead. Our factory has been turning out sixty cars a week for many months and we are now starting on a schedule of seventy-five cars a week. The enthusiasm for the Marmon car extends all over the country and to various parts of the world. We have never been able to supply our dealers with the number of cars which they could have sold. We have made no special effort to secure foreign business, since we were anxious to supply as much of the local trade as we could, but at that we have been making foreign shipments steadily. We have delivered cars in Spain, Holland, various countries in South and Central America, Norway, and many other foreign countries, and almost every mail brings inquiries from other points abroad. The Marmon 34 appeals particularly to these foreign people on account of its many new features of construction, by which the weight of the car is reduced considerably, with an increase in comfort of riding and ease of handling."

Willys-Knight Sedan Has Style



OAKLAND FAVORS HIGH SPEED MOTOR

Chief Engineer Argues for Long Stroke Engine With Overhead Valves.

By A. C. HAMILTON,
Chief Engineer Oakland Motor Co.

From every angle the light high speed motor is the best engine for automobiles. Not only does it give the motorist economy, flexibility and a smoothness that cannot be equalled by the heavy slow speed type, but it is the most logical from the point of technique in motor construction.

Coming after the steam engine, internal combustion motors naturally followed the best steam engine design. At the outset engineers had nothing from which to work except the steam engine. The best principles of steam engine design called for a large bore and short stroke in an engine whose piston speed never exceeded a thousand feet a minute.

It was considered dangerous to attempt a higher speed a minute with a steam engine, and the first internal combustion engines were designed with a large bore for the cylinder and a short stroke. Experiment and test showed the weak points of such construction.

Engineers found that the larger the heated surface of the combustion chamber the more waste of heat and consequent loss of efficiency to be one drawback. Then too the speed was held down by the inertia of the reciprocating parts—energy lost when the heavy piston was stopped at the end of the upward stroke. The big heat surface of the large bore short stroke motor also prevented the use of high compression because it produced preignition, commonly called "spark knock." This was extremely hard on the bearings and disagreeable to the motorist.

To reduce the inertia of the reciprocating parts the first experiments were in lightening the weight of the pistons and connecting rods. Later the theory was evolved that the speed of an internal combustion motor was limited only by the inertia of the reciprocating parts and the charging and scavenging of the cylinders. With a view to reducing the heat surface of the cylinder and eliminating all the waste heat possible the bore of the cylinder was reduced and the stroke lengthened. This not only adds power by reducing the heat losses, but it lightens the reciprocating parts, thus reducing the inertia.

These points of construction give this type of motor a distinct advantage over the other types. It reduced the heated surface so that "spark knocks" were eliminated. It permitted the installation of the same size power unit in a shorter space, getting away from the long heavy motor and enabling designers to have more latitude in the exterior lines of a motor car.

Having established the superiority of the long stroke small bore motor, engineers discovered that the overhead valve gave the best results. This is due to the fact that there are no pockets in the combustion chamber in this method of construction as opposed to the L head or T head motors. While harder to build, this type is worth while, and its success as a power producer is well recognized by makers of aviation motors and automobile racing cars.

"FOURSOME," NEW PREMIER.

Sport Model Has New and Distinctive Lines.

Sometimes it is harder to find a new name than to create a new product, but the Premier Motor Corporation of Indianapolis seems to be able to do the new thing equally well whether the new thing be a new model, a new type of body lines or a new name for a model that its designers have evolved.

It will be remembered that the name "Cloverleaf," as applied to the three passenger roadster, was originated by Premier. And this year along comes Premier again with a name that will make its mark in history.

The new Premier four passenger sport model is happily named the "Foursome."

The Premier "Foursome" is a happy blend of the old fashioned toy tonneau and the classic roadster. It combines the advantages of each. Both front and rear doors have been provided. The lines of the "Foursome" are stunning and new.

Charles S. Crawford, associate chief engineer of the Premier Motor Corporation, is the designer.

PATHFINDER MEN AT WALDORF

Capable Force on Hand to Introduce New Models.

W. E. Stalnaker, vice-president and director of sales, Indianapolis, has established headquarters at the Waldorf-Astoria Hotel in Rooms 429, 430, 431, 432 and 433, and reports the following members of the Pathfinder organization here to assist him in show work: D. M. Shaw, director of advertising; St. Clair Couzens, assistant director of sales and advertising; F. G. Buskirk, assistant sales manager; W. K. Bromley, secretary-treasurer; F. M. Bowman, sales; Richard Wolfe, salesman; Karl Feilcke, engineer; H. A. Scholler, mechanical department, and C. C. Woods, mechanical department.

FIVE BEAUTIFUL PACKARDS SHOWN

Wonderful Color Schemes and Elegant Appointments Seen at Palace Show.

Five beautiful cars chosen from a group of twenty-two especially finished for exhibition will represent the Packard Twin Six line on the floor of the Grand Central Palace.

They are standard in design and their chassis are the same as in every Packard car, but in color scheme, fittings and appointments they are individual creations.

Imperial in its violet purple and its gold is the seven passenger limousine with cab sides. The body, door panels and wheels are in the royal color. The striping on body, panels and wheels is done in gold leaf. Appropriate monograms are blasoned on the door panels. The interior is finished in yielding broadcloth of finest texture. Carpeting, curtains, laces and upholstery are all of Laidlaw designing. The metal fittings of the interior are of dull gold finish, in a quiet, rich harmony with the whole effect.

Another noteworthy car is the six passenger landaulet, entirely lustrous black with the exception of its white wire wheels and its distinctive white striping of body and door panels. The upholstery is Laidlaw Japanese tapestyr, the lining of the ceiling blue damask. The robe rail is of silk and the thick ply carpets are black.

Gun metal gray is the color of a 2-25 brougham. Gray to match is the note of body striping, door panels and wheels. The interior is upholstered in keeping.

Cobalt blue shimmers on body and door panels of an open car of the seven passenger touring model. The wheels are in natural hickory. The striping is of white and fine gold lines. The upholstery is the standard that has done so much to make Packard and luxury synonymous.

A trim phaeton is finished in Packard olive green, deep and dull rubbed. The wheels are in natural wood and the striping is of gold leaf.

Many other beautiful cars finished especially for show purposes will be on display in the showroom of the New York Packard building.

12,000 MILE TEST RUN FOR HAL "12"

Extra High Speed Made Over Rough Roads in Three Month Trip.

The Hal Twelve will be sold in New York city by the Jennings Motor Sales Company, which has opened a beautiful salesroom at 1891 Broadway. This store will be in charge of E. R. Hollander, who formerly sold another well known car, of foreign manufacture.

According to J. A. Jennings, president of the Jennings Motor Sales Company, of Hal Twelve should receive a warm welcome among New York motorists, who demand the almost impossible in the way of power and easy riding qualities in the car they drive.

"Both Mr. Hollander and myself are very enthusiastic over the performance of the Hal Twelve," he said. "We believe it will prove to be one of the greatest selling high grade cars in the automobile field.

"The chassis is certainly great, its motor seems to be a wonder, its body lines are good, and we have every reason to believe that in a very short time it will stand high among all motor cars of the entire world.

"After driving our demonstration car over 12,000 miles in a period of a little less than three months, we gave it a thorough examination and found it in remarkably good shape. The bearings, for instance, did not need any adjustment whatever, and showed practically no wear in this 12,000 miles of extra hard service.

"In our test we travelled over the roughest roads we could find, and some were exceedingly rough, especially through northern Virginia. We gave the Hal Twelve a great deal of mountain climbing, some over good roads and some over mere wagon trails, and have as yet to have it buck on us. It has been driven during this test as much as possible around forty to fifty miles an hour, and where the roads and the law would permit as high as seventy miles an hour.

"After going through this severe test all the Hal Twelve needed before being again put in regular service as a demonstrator was to have the valves touched up a bit and a new coat of paint. After this is done I am willing to bet that nine out of ten experienced motorists could not tell it from a new car.